



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,759	02/10/2004	Ethan Wood	115438-212	3473
29180	7590	09/13/2007		
BELL, BOYD, & LLOYD LLP			EXAMINER	
P.O. BOX 1135			HALL, ARTHUR O	
CHICAGO, IL 60690				
			ART UNIT	PAPER NUMBER
			3714	
			MAIL DATE	DELIVERY MODE
			09/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/776,759

Applicant(s)

WOOD, ETHAN

Examiner

Arthur O. Hall

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

Examiner acknowledges that applicants arguments directed to the rejection set forth under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) are persuasive, in part, in view of each of applicants amendments, and, in part, in view of applicants arguments, thus the rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) are withdrawn. However, a new ground of rejection under 35 U.S.C. 103(a) has been set forth below.

Examiner acknowledges applicant's amendment of Figure 4 to include references characters 63, 64, 65, 67 and 69, which obviates the objection described in the non-final office action dated 1/3/2007. Therefore, Examiner withdraws further objection to the claim.

Examiner acknowledges applicant's amendment of paragraphs [0027], [0034], [0039] and [0040] to resolve various informalities, which obviates the objection described in the non-final office action dated 1/3/2007. Therefore, Examiner withdraws further objection to the claim.

Examiner acknowledges applicant's amendment of claims 3, 6-8, 10, 13-15, 18, 24-25 and 27-28 to resolve various informalities, which obviates the objection described in the non-final office action dated 1/3/2007. Therefore, Examiner withdraws further objection to the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Himoto et al. (US Patent 6,478,679; hereinafter Himoto). Figures are described with reference characters where necessary for clarity.

Regarding claim 1,

a hand-held game (column 25, lines 59-64 and Fig. 33, 220, Himoto), comprises:

a housing having a front face (column 26, lines 55-67 and Fig. 34, Himoto; a housing of a controller is shown with a front face and a back face and inherently has these features since the controller is an enclosure that requires at least a front, back and side walls);

electrical circuitry within said housing (column 27, lines 42-52, Himoto; the controller housing inherently has electrical mating connections in order to be in electrical communication with the memory card connector upon insertion of the card in the housing);

a display screen formed in said front face (column 26, lines 50-54 and Fig. 33, 236, Himoto; a window or display screen is disposed in the front surface of the controller);

a first opening in said housing (column 26, lines 45-49, column 28, lines 11-20 and Fig. 34, 234A, Himoto; an upper slot or first opening is formed in the controller housing); and

Art Unit: 3714

a display card visible through said display screen, said display card having a portion that allows completion of said electrical circuitry and being insertable and removable through said first opening (column 27, lines 42-52, Fig. 32, 210 and 212, Fig. 34, 234A and Fig. 39, 234A and 200, Himoto; a display card or memory card is removably insertable in the upper slot, visible through the window and is in electrical communication with the housing via connectors).

Regarding claim 2, the first opening is in a top face of said housing (column 26, lines 45-49, column 28, lines 11-20 and Fig. 34, 234A, Himoto; the upper slot is formed in a top surface of the controller housing).

Regarding claim 3, a second opening in said housing adapted to receive receives another display card not received in said first opening for use during play is included (column 26, lines 45-49, column 28, lines 11-62, Fig. 34, 234B and Fig. 39, 234B and 260, Himoto; an lower slot or second opening is formed in the controller housing and a second display card or memory card is inserted therein and is interchangeable with the display card in the upper slot or first opening).

Regarding claim 4, the second opening is a pocket secured to a back face of said housing (column 26, lines 45-49, column 28, lines 11-20, Fig. 34, 234B, Himoto; the lower slot is shown disposed at the back surface of the controller housing).

Regarding claims 28-29, the scope of the claims is substantially the same as claims 1-4 above with the only difference being that claims 1-4 are apparatus claims and claims 28-29 are process claims that recite steps in which the apparatus is structurally configured to perform.

Art Unit: 3714

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 10-11, 16-17, 21-22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himoto in view of Masuyama et al. (US Patent 6,375,572; hereinafter Masuyama). Figures are described with reference characters where necessary for clarity.

Regarding claim 16,

Himoto substantially teaches features of the claimed invention as described above.

However, Himoto does not substantially teach impact sensor features as claimed. Therefore, attention is directed to Masuyama, which teaches an impact sensor

Art Unit: 3714

mounted in said housing to sense movement of said housing (column 7, line 62 to column 8, line 10 and Fig. 3, 31, Masuyama; an acceleration sensor is configured to sense the X-Y position movement of the game machine main body when mounted in the body via the cartridge), wherein a path of a simulated pinball in said display screen is changed when movement of said housing is sensed by said impact sensor (column 8, lines 11-32 and column 10, lines 23-33, Masuyama; input based on tilting or moving the game machine apparatus main body provides the controls in which the output from the acceleration detector to the CPU is provided so that the CPU executes the game program to display a simulated ball and it would have been obvious at the time of invention to simulate a pinball since mere re-programming is required to emulate a pinball game).

Masuyama suggests that a device that provides an acceleration sensor to detect acceleration of the portable game machine body based on motion created by the player when the sensor is mounted in the game machine body will eliminate the unintentional sensing of acceleration input relative to a horizontal created by devices that provide the acceleration sensor in a controller that is separate from the game machine body (column 1, lines 27-55, Masuyama).

Thus, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to modify Himoto in view of the teachings of Masuyama for the purpose of providing the gaming device of Himoto having portable and integrated memory card and electronic controller features that are interchangeable

Art Unit: 3714

with or upgradeable to the impact sensor features of Masuyama in order to eliminate the unintentional sensing of acceleration input relative to the horizontal inherent to device in which the acceleration sensor is separate from the game machine body by providing an acceleration sensor that detects game machine body motion when mounted in the game machine body.

Regarding claims 17 and 26, Himoto teaches

Regarding claim 17, the first opening is in a top face of said housing (column 26, lines 45-49, column 28, lines 11-20 and Fig. 34, 234A, Himoto; the upper slot is formed in a top surface of the controller housing).

Regarding claim 26, the second opening is a pocket attached to a back face of said housing (column 26, lines 45-49, column 28, lines 11-20, Fig. 34, 234B, Himoto; the lower slot is shown disposed at the back surface of the controller housing).

The claimed features of claims 10-11, 21-22 and 30-31 do not appear to be disclosed in Himoto; therefore, attention is directed to Masuyama, which teaches

Regarding claims 10 and 21, the housing has at least one speaker to provide sound (column 7, lines 45-54, Masuyama).

Regarding claims 11 and 22, the display screen is an LCD (column 7, lines 29-31, Masuyama).

Regarding claim 30, the step of tapping the housing during play to alter a path of a simulated pinball in said display screen is included (column 10, line 42 to column 11, line 8, Masuyama; the player taps the portable game apparatus to control the motion of

the simulated ball).

Regarding claim 31, the step of counting the tapping of the housing during play; and stopping play when a predetermined number of taps has occurred within a predetermined amount of time (column 8, line 66 to column 9, line 60, Masuyama; the acceleration sensor counts or measures the count value of the magnitude of the acceleration that occurs upon tapping of the portable game apparatus, thereby measuring the number of taps that occur during the predetermined count time period).

Claims 12, 19-20, 23-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himoto in view of Masuyama, and even further in view of Ota et al. (US Patent 6,743,104; hereinafter Ota). Figures are described with reference characters where necessary for clarity.

Himoto alone or in combination with Masuyama substantially teaches features of the claimed invention as described above.

However, Himoto alone or in combination with Masuyama does not substantially teach dot matrix display features as claimed. Therefore, attention is directed to Ota, which teaches

Regarding claims 12 and 23, the LCD has a dot matrix portion to display text on said dot matrix portion (column 3, lines 32-35, Ota; a dot matrix display displays images and it would have been obvious at the time of invention to configure the display to display text since mere basic re-programming or manipulation of data is required to perform this task).

Ota suggests that a device that incorporates a color display, specifically in a pinball-type game with vibration sensing, and any further improvements thereof will enhance the player's game playing experience (column 1, lines 17-62, Ota).

Thus, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to modify Himoto in view of the teachings of Masuyama, and further in view of the teachings of Ota for the purpose of exchanging the interchangeable or upgradeable display features of Himoto alone or in combination with Masuyama with the dot matrix display features of Ota in order to enhance the player's game playing experience by providing the player with more display features that improve communication of information during game play.

Regarding claim 19, a battery is contained in said housing which powers said hand-held pinball game (column 4, line 59 to column 5, line 2 and Fig. 4, 67, Ota; batteries are located in a battery compartment of the game machine).

Regarding claims 20, the housing is made of plastic (column 3, lines 58-67, Ota).

Regarding claims 24, a printed circuit board is mounted in said housing behind said display card in said first opening and said display screen (column 3, lines 58-67, Ota; a printed circuit board is encased in a plastic housing inherently behind the display card and display screen since the display screen of the display card is viewable to the player and not the printed circuit board).

Regarding claims 25, a plurality of LED's are visible through said display screen mounted on said printed circuit board (column 4, line 59 to column 5, line 2, column 10, lines 19-22 and Fig. 3, 69, Ota; an LED is visible through the LCD display so as to

Art Unit: 3714

indicate power and it would have been obvious at the time of invention for the LED to be connected to the printed circuit board since portable devices obtain power and control from these circuit boards and it would have been obvious at the time of invention to provide plural LEDs since indication of the game or device vibration function would have been required).

Regarding claims 27, first and second buttons on said front face of said housing (column 4, lines 41-58 and Fig. 3, 48a-48e, Ota; operating keys or plural buttons disposed on the housing front surface are disclosed) which control simulated flippers of said display screen are included (column 1, lines 53-57; simulated flippers are controlled by the actuation of the operating keys by the player).

Claims 18 and 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Himoto in view of Masuyama, and even further in view of d'Achard Van Enscht (US Patent 5,700,193; hereinafter Van Enscht). Figures are described with reference characters where necessary for clarity.

Himoto alone or in combination with Masuyama substantially teaches features of the claimed invention as described above.

However, Himoto alone or in combination with Masuyama does not substantially teach spring-loaded plunger features as claimed. Therefore, attention is directed to Van Enscht, which teaches

Regarding claim 18, a spring-loaded plunger is connected to the housing in order to launch said simulated pinball (column 1, lines 56-59 and Fig. 1, 22, 24, 26 and 70, Van Enscht).

Van Enscht suggests that a device that brings the electromechanical means of actuating a pinball with a spring-loaded plunger to the electronic game world will enhance the true-to-life and nostalgic feeling that players have for the old pinball games creating greater interest in electronic pinball game devices (column 1, line 1 to column 2, line 4, Van Enscht).

Thus, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to modify Himoto in view of the teachings of Masuyama, and further in view of the teachings of Van Enscht for the purpose of exchanging the interchangeable or upgradeable electronic video ball game features of Himoto alone or in combination with Masuyama with the simulated pinball launched by a spring-loaded plunger feature of Van Enscht in order to create greater interest in electronic pinball game devices by enhancing the true-to-life and nostalgic feeling of players via introduction of old electromechanical actuating means for pinball games into the electronic pinball game world.

Regarding claim 33, the scope of the claim is substantially the same as claim 18 above with the only difference being that claim 18 is an apparatus claims and claim 33 is a process claim that recites steps in which the apparatus is structurally configured to perform.

Claims 5, 8-9, 13-15 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himoto in view of Ota. Figures are described with reference characters where necessary for clarity.

Himoto substantially teaches features of the claimed invention as described above.

However, Himoto does not substantially teach a pinball game as claimed. Therefore, attention is directed to Ota, which teaches

Regarding claim 5, the hand-held game is a pinball game (column 7, lines 51-65, Ota).

Ota suggests that a device that incorporates a pinball-type game with further with vibration sensing improvements will enhance the player's game playing experience (column 1, lines 17-62, Ota).

Thus, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to modify Himoto in view of the teachings of Ota for the purpose of exchanging the interchangeable or upgradeable hand-held video gaming features of Himoto with the hand-held pinball game features of Ota in order to enhance the player's game playing experience by providing the player with more game features that retain the player's interest in gaming.

Regarding claim 8, a battery is contained in said housing which powers said hand-held game (column 4, line 59 to column 5, line 2 and Fig. 4, 67, Ota; batteries are

located in a battery compartment of the game machine).

Regarding claim 9, the housing is made of plastic (column 3, lines 58-67, Ota).

Regarding claim 13, a printed circuit board is mounted in said housing behind said display card and said display screen (column 3, lines 58-67, Ota; a printed circuit board is encased in a plastic housing inherently behind the display card and display screen since the display screen of the display card is viewable to the player and not the printed circuit board).

Regarding claim 14, a plurality of LED's are visible through said display screen are mounted on said printed circuit board (column 4, line 59 to column 5, line 2, column 10, lines 19-22 and Fig. 3, 69, Ota; an LED is visible through the LCD display so as to indicate power and it would have been obvious at the time of invention for the LED to be connected to the printed circuit board since portable devices obtain power and control from these circuit boards and it would have been obvious at the time of invention to provide plural LEDs since indication of the game or device vibration function would have been required).

Regarding claim 15, first and second buttons on said front face of said housing (column 4, lines 41-58 and Fig. 3, 48a-48e, Ota; operating keys or plural buttons disposed on the housing front surface are disclosed) control simulated flippers of said display screen (column 1, lines 53-57; simulated flippers are controlled by the actuation of the operating keys by the player)

Regarding claim 32, the scope of the claim is substantially the same as claim 15 above with the only difference being that claim 15 is an apparatus claims and claim 32 is a process claim that recites steps in which the apparatus is structurally configured to perform.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Himoto in view of Ota, and even further in view of Masuyama. Figures are described with reference characters where necessary for clarity.

Himoto alone or in combination with Ota substantially teaches features of the claimed invention as described above.

However, Himoto alone or in combination with Ota does not substantially teach impact sensor features as claimed. Therefore, attention is directed to Masuyama, which teaches

Regarding claim 6, an impact sensor in said housing is adapted to sense movement of said housing (column 7, line 62 to column 8, line 10 and Fig. 3, 31, Masuyama; an acceleration sensor is configured to sense the X-Y position movement of the game machine main body when mounted in the body via the cartridge) and alter a path of a simulated pinball in said display screen in response thereto (column 8, lines 11-32 and column 10, lines 23-33, Masuyama; input based on tilting or moving the game machine apparatus main body provides the controls in which the output from the acceleration detector to the CPU is provided so that the CPU executes the game program to display a simulated ball and it would have been obvious at the time of invention to simulate a pinball since mere re-programming is required to emulate a pinball game).

Motivation as suggested above by Masuyama is applicable here to support modification of Himoto alone or in combination with Ota to incorporate the features taught by Masuyama.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Himoto in view of Ota, and even further in view of Van Enschut. Figures are described with reference characters where necessary for clarity.

Himoto alone or in combination with Ota substantially teaches features of the claimed invention as described above.

However, Himoto alone or in combination with Ota does not substantially teach impact sensor features as claimed. Therefore, attention is directed to Van Enschut, which teaches

Regarding claim 7, a spring-loaded plunger is connected to said housing in order to launch a simulated pinball into play (column 1, lines 56-59 and Fig. 1, 22, 24, 26 and 70, Van Enschut).

Motivation as suggested above by Van Enschut is applicable here to support modification of Himoto alone or in combination with Ota to incorporate the features taught by Van Enschut.

Response to Arguments

Applicant's response filed on 7/3/2007 with respect to Examiners' rejection under 35 U.S.C. 102(b) in the Non-final Office Action dated 1/3/2007 have been fully considered and are persuasive in light of applicant's amendments and arguments thereof. Hence, the rejection under 35 U.S.C. 102(b) has been withdrawn.

Applicant's response filed on 7/3/2007 with respect to Examiners' rejection under 35 U.S.C. 103(a) in the Non-final Office Action dated 1/3/2007 have been fully considered and are persuasive in light of applicant's amendments and arguments thereof. Hence, the rejection under 35 U.S.C. 103(a) has been withdrawn.

Consequently, applicants arguments have been deemed to be persuasive, in part, in view of each of applicants amendments, and, in part, in view of applicants arguments. However, Examiner has provided the above new grounds of rejection of the claims under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) because each of the features of applicant's claimed invention continues to be disclosed in the prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

E US-4,334,679, Doyle et al.

F US-6,120,379, Tanaka et al.

G US-6,315,669 B1, Okada et al.

H US-6,241,611 B1, Takeda et al.

I US-5,095,798, Okada et al.

J US-5,184,830, Okada et al.

K US-2001/0036862 A1, Kitamori et al.

L US-2004/0023719 A1, Hussaini et al.

M US-4,336,776, Bromley.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur O. Hall whose telephone number is (571) 270-1814. The examiner can normally be reached on Mon - Fri, 8:00am - 5:00 pm, Alt Fri, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH

9/10/2007


ROBERT E. PEZZUTO
SUPERVISORY PRIMARY EXAMINER